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Applicant
Naomi Chayen et al

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Group Art Unit

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Hench et al.

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Translation	
YES	NO

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Blow et al, PROTEIN SCIENCE, *Control of Nucleation of Protein Crystals*, Vol. 3, 1994, pp. 1638-1643

Chayen et al, J. APPL. CRYST. An Automated System for Micro-Batch Protein Crystallization and Screening, Vol. 23, 1990, pp. 297-302

Chayen et al, JOURNAL OF CRYSTAL GROWTH, Microbatch Crystallization Under Oil - A New Technique Allowing Many Small-volume Crystallization Trials, Vol. 122, 1992, pp. 176-180

Chayen et al, JOURNAL OF CRYSTAL GROWTH, Is Lysozyme Really the Ideal Model Protein?, Vol. 232, 2001, pp. 262-264

Chayen et al, PROTEIN SCIENCE, *Control of Nucleation in the Crystallization of Lysozyme*, Vol. 2, 1993, pp. 113-118

Coleman & Hench, CERAMICS INTERNATIONAL, A Gel-derived mesoporous Silica Reference Material for Surface Analysis by Gas Sorption, Vol. 26, 2000, pp. 171-178

Cook et al, KEY ENGINEERING MATERIALS, *Pore Characterisation and Interconnectivity Studies on bioactive 58 S Sol-Gel Glass*, Vols. 192-195, 2001, pp. 625-628

D'Arcy et al, JOURNAL OF CRYSTAL GROWTH, *A Novel Approach to Crystallising Proteins Under Oil*, Vol. 168, 1996, pp. 175-180

Dusastre, NATURE, Pore Characterization, Vol. 408, 2000, p. 417

FH.

Feher & Kam, METHODS ENZYMOLOGY, *Nucleation and Growth of Protein Crystals: General Principles and Assays*, Vol. 114, 1985, pp. 77-112

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Document Number 20050515.ORI	Application Number 10/019,520
	Applicant Naomi Chayen et al	
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U.S. PATENT DOCUMENTS

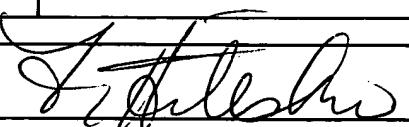
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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

F.H. ↑ F.H.	Hench & West, LIFE CHEMISTRY REPORTS, <i>Biological Applications of Bioactive Glasses</i> , Vol. 13, 1996, pp. 187-241
	Hench, CURRENT OPINION IN SOLID STATE & MATERIALS SCIENCE, <i>Sol-gel Materials for Bioceramic Applications</i> , Vol. 2, 1997, pp. 604-610
	Hench & West, CHEM. REV., <i>The Sol-Gel Process</i> , Vol. 90, 1990, pp. 33-72
	http://proteome.bnl.gov/progress.html , <i>Progress toward structure solution by X-ray Crystallography</i> , January 18, 2005, pp. 1-3
	Lenza et al, JOURNAL OF MATERIALS SCIENCE: MATERIALS IN MEDICIN, <i>Surface-modified 3D Scaffolds for Tissue Engineering</i> , Vol. 13, 2002, pp. 837-842
	Li et al, JOURNAL OF APPLIED BIOMATERIALS, <i>An Investigation of Bioactive Glass Powders by Sol-Gel Processing</i> , Vol. 2, 1991, pp. 231-239
	Li et al, CHEMICAL PROCESSING OF ADVANCED MATERIALS, <i>Effects of Structure and surface Area on bioactive Powders by Sol-Gel Process</i> , Vol. 56, 1992, pp. 627-633
	Malkin et al, JOURNAL OF CRYSTAL GROWTH, <i>Crystallization of Stellite tobacco Mosaic Virus I. Nucleation Phenomena</i> , Vol. 126, 1993, pp. 544-554
	McPherson and Schlichta, <i>Heterogeneous and Epitaxial Nucleation of Protein Crystals on Mineral Surfaces</i> , Vol. 239, 1988, pp. 385-387
	Orefice et al, JOURNAL OF BIOMEDICAL MATERIAL RESEARCH, <i>Novel Sol-Gel Bioactive Fibers</i> , Vol. 55, 2001, pp. 460-467
Pereira & Hench, JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, <i>Mechanisms of Hydroxyapatite Formation on Porous Gel-Silica Substrates</i> , Vol. 7, 1996, pp. 59-68	

EXAMINER 	DATE CONSIDERED 8/28/06
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

Fth	Rosether et al, <i>BIOMATERIALS</i> , Development and in vitro Characterisation of Novel Bioresorbable and Bioactive Composite Materials Based on Polylactide Foams and Bioglass for Tissue Engineering Applications, Vol. 23, 2002, pp. 3871-3878
	Rosenberger et al, <i>JOURNAL OF CRYSTAL GROWTH</i> , Temperature Dependence of Protein Solubility - Determination and Application to Crystallization in X-ray Capillaries, Vol. 129, 1993, pp. 1-12
	Sanjoh et al, <i>JOURNAL OF CRYSTAL GROWTH</i> , Spatiotemporal Protein Crystal Growth Studies Using Microfluidic Silicon Devices, Vol. 196, 1999, pp. 691-702
	Sanjoh et al. <i>JOURNAL OF CRYSTAL GROWTH</i> , Surface-potential Controlled Si-microarray Devices for Heterogeneous Protein Crystallization Screening, Vol. 232, 2001, pp. 618-628
	Saravanapavan and Hench, <i>JOURNAL OF BIOMEDICAL MATERIAL RESEARCH</i> , Low-Temperature synthesis, Structure, and Bioactivity of Gel-Derived Glasses in the Binary CaO-SiO ₂ System, Vol. 54, 2001, pp. 608-618
Fth	Sepulveda et al, <i>JOURNAL OF BIOMEDICAL MATERIAL RESEARCH</i> , Bioactive Sol-Gel Foams for Tissue Repair, Vol. 59, 2002, pp. 340-348
	Sing et al, <i>PURE AND APPL. CHEM.</i> , Reporting Physisorption Data for Gas/Solid Systems, Vol. 57, 1985, pp. 603-619
	Stamboulis et al, <i>ADVANCED ENGINEERING MATERIALS</i> , Novel Biodegradable Polymer/Bioactive Glass Composites for Tissue Engineering Applications, Vol. 4, No. 3, 2002, pp. 105-109
	Stura, <i>PROTEIN CRYSTALLIZATION: TECHNIQUES, STRATEGIES AND TIPS</i> , (ed. Bergfors, T.M.) (International University Line, LaJolla; 1999)

EXAMINER	DATE CONSIDERED
<i>[Signature]</i>	8/28/86

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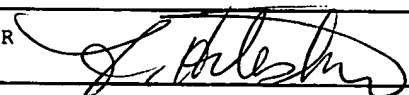
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

Fth 1 SA	Visuri et al, BIO/TECHNOLOGY, A New Method for Protein Crystallization Using High Pressure, Vol. 8, 1990, pp. 547-549
	Chayen et al, ACTA CRYST., Protein crystallization for Genomics: towards High-throughput Optimization Techniques, Vol. 58, 2002, pp. 921-927
	Chayen et al, JOURNAL OF MOLECULAR BIOLOGY, Porous Silicon: An Effective Nucleation-inducing Material for Protein Crystallization, Vol. 312, 2001, pp. 591-595
	Sakamoto et al, NATURE, Direct Imaging of the Pores and Cages of Three-Dimensional Mesoporous Materials, Vol. 408, 2000, pp. 449-453
	Saridakis et al, ACTA CRYST, Separating Nucleation and Growth in Protein Crystallization Using Dynamic Light Scattering, Vol. 58, 2002, pp. 1597-1600
	Wiencek, ANNU. REV. BIOMED. ENG., New Strategies for Protein Crystal Growth, Vol. 1, 1999, pp. 505-534
	Fabbri et al, BIOMATERIALS, Hydroxyapatite-based Porous Aggregates: Physico-Chemical Nature, Structure, Texture and Architecture, Vol. 16, 1995, pp. 225-228
	Drenth, J. (1994), PRINCIPLES OF PROTEIN X-RAY CRYSTALLOGRAPHY, Springer-Verlag, New York (Textbook, copy not provided)
	Hench, L.L. (1998), SOL-GEL SILICAS, Hayes Publishing Co., New York (Textbook, copy not provided)
	Iler, R.K. (1979), THE CHEMISTRY OF SILICA, J Wiley & Sons, New York (Textbook, copy not provided)
Lowell S., Shields JE. (1984) POWDER SURFACE AREA AND POROSITY. Chapman and Hall (Textbook, copy not provided)	

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